ENGLISH

Z10-3 edition 1
Code: 005.130
005.112

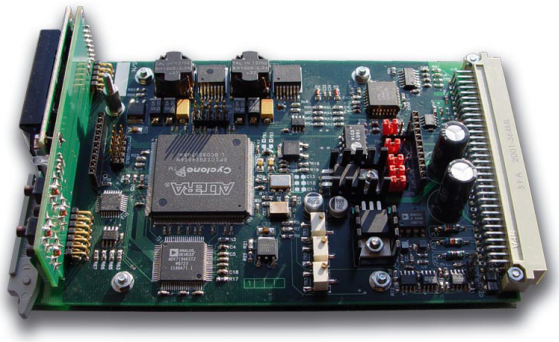
DA-12fs(s)

SDI to analog video converter with FSync 12/10 bit
- for SRU rack frame
- standalone

USER MANUAL FOR USE AND MAINTENANCE

Read the instructions before using the device.

Keep this manual for periodic usage.



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Published: 11. september 2012.
Updated: 30. july 2014.

WARRANTY

Dear User,
Thank you very much for purchasing our product.
Your purchase is a wise investment. The equipment you have purchased is manufactured with great care from high-quality parts and materials. It is designed to fully meet the needs according to specifications, if properly installed, used and maintained according to the enclosed instructions.

Any technical failure or deficiency that occurs during the warranty period specified on the invoice of the purchased equipment will be inspected and serviced by Sams elektronik doo or an authorized service center of the manufacturer, with the conditions set out in the warranty statement.

THIS DEVICE IS INTENDED FOR PROFESSIONAL USE.

WARRANTY STATEMENT

1. Product has declared characteristics. Within the warranty period, manufacturer ensures the removal of technical failures, product defects or replacement of products if declared characteristics of the product are changed.
2. If the goods are not delivered as specified with the contract, the consumer has the right to request from the manufacturer / service provider to eliminate the lack of conformity, without charge, repair or replacement, or to request an appropriate price reduction or terminate the contract.
3. Any repair or replacement must be made within a reasonable time without significant inconvenience to the consumer, taking into account the nature and the purpose for which the consumer has purchased the product.
4. The consumer has the right to terminate the contract, if he can realize the right to repair or replacement, or if the manufacturer / servicer has not completed repair or replacement within a reasonable time or if the manufacturer / servicer did not perform repair or replacement without significant inconvenience to the consumer.
5. The consumer may not terminate the contract if the lack of conformity of the product is negligible.
6. The product will function properly when used in accordance with the user manual.
7. Period of servicing the product is 6 years from the launch on the market.

The product purchased outside the territory of Serbia does not fall under the terms of this warranty, only to 1 year factory warranty from date of purchase.

TERMS OF WARRANTY

1. The warranty period begins on the date of sale referred in the invoice.
2. The buyer loses the right to warranty if the defect cause failure from not following the user manual instructions, improper installation, comes to mechanical damage during use, repairs and modifications by unauthorized persons, installation of non-genuine spare parts, and if the buyer does not comply with all warnings listed in the user manual.
3. The warranty is voided if the device is damaged during the disturbances from the environment, natural disasters (floods, hail, etc.), suffered an electric shock or lightning strike.

IMPORTANT NOTES

1. Be sure to thoroughly read the user manual.
   If you have any doubts about the instructions, contact the technical support of the manufacturer.
2. Before contacting for technical help, please make sure that are provided with all necessary conditions for normal operation.
3. If the malfunction or defect in the device does not eliminate within a reasonable time from the date of failure, the warranty period shall be extended for as many days as the unit is in service.
4. For all maintenance interventions shall solely be authorized services listed in this Warranty Certificate.

SAFETY WARNINGS FOR SRU RACK FRAME

IMPORTANT SAFEY

WARNING

TO AVOID RISK OF FIRE OR ELECTRIC SHOCK
DO NOT EXPOSE THE UNIT TO MOISTURE OR RAIN

The symbol "lightning in a triangle" is to alert the user to the presence of high voltage. In poor conditions the user may be exposed to shock.

The symbol "exclamation mark in a triangle" is to alert the user to comply by the terms of use in user's manual, which is supplied with the device.

CLASS I DEVICE
Grounding is connected to the chassis of the device.
The power supply is protected with fuse against overload.

DECLARATION OF CONFORMITY for product:
SRU RACK FRAME WITH POWER SUPPLY (PSU-212) WITH CORRESPONDING MODULES AND BACK CONNECTORS
The product is designed and manufactured according to the following regulations:

- Electromagnetic Compatibility Directive (EMC)
- Low Voltage Directive (ELV)

Documentation confirming statements can be obtained on written request for review.

WARNING

TO AVOID ELECTRIC SHOCK, DO NOT OPEN COVER.
DEVICE MAINTENANCE REQUIRES PROFESSIONAL PERSON AUTHORIZED BY THE MANUFACTURER.

1. Read all safety and operating instructions before using the device.
2. Keep all safety and operating instructions.
3. Follow the instructions from the user manual.
4. Do not upgrade device, except in the case advised by the manufacturer.
5. Do not use the device in the presence of water and / or moisture.
6. Do not pour water or moisten the device with any type of liquid.
7. Openings on device are provided for ventilation.
8. Do not block air flow through the ventilation openings.
9. This product is powered by AC ~ 230V ± 10%, 50Hz.
10. This product is equipped with a three-wire cord with grounding.
11. This device is equipped with a protective fuse in the power outlet. Do not bypass fuse.
12. Do not replace the fuse. Replacement can be made by a person authorized by the manufacturer.
13. Do not bend the power cord so that it can be damaged.
14. Connect connectors as in the enclosed instructions. Deviations from the allowed values predicted for the inputs and outputs of the device can cause severe damage and warranty void.
15. Do not use the device in an environment that contains flammable or explosive materials in any physical state.
16. Turn off the power corde before cleaning. Do not use liquid, aerosol or flammable cleaners. Use only a dry cloth.
17. Servicing is performed by a qualified person. Removing the cover user is exposed to high voltages.
18. Never use the device when the cover is open and the device is powered on.
19. Do not expose to extreme high or low temperatures.
20. Do not expose to sudden temperature changes.
21. Call service in the following cases:
    - The power cord or plug is damaged
    - Liquid or foreign objects is inside the device
    - The machine is exposed to water and moisture
    - The device does not function according to specification
    - The unit has been dropped or damaged
    - The characteristics are significantly changed
22. Use only specified replacement parts.
23. Professional person authorized by the manufacturer must check the device after completion of service.
24. Allow a free rack unit (1RU) above and below the device for ventilation or put rack fan under the device.

Pictures and drawings listed in this user manual are for information purposes only and may differ from the actual device. Design and specifications of the device may change without prior notice.

TECHNICAL SUPPORT AND SERVICE

Sams elektronik has made every effort to ensure that the equipment works in perfect condition. In the event that problems that occur can not be resolved, or if you have any questions regarding this equipment or information about other products produced from Sams elektronik, contact your local sales representative or call Sams elektronik directly through one of the ways listed below:

Sales: +381 11 3806 254
Technical support: +381 11 2402 212
Service: +381 11 4056 051
Email:
Sales - sasa@sams.rs
Technical support and service - sams@sams.rs

Web site: www.sams.rs

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48 Zivka Davidovica st
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UNPACKING AND INSTALLATION

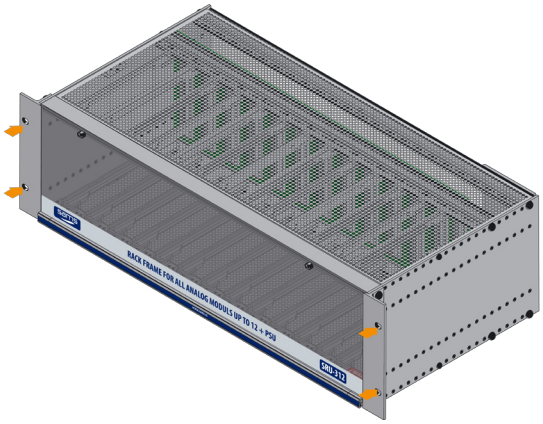
The box contains:

- Module
- Back connector (optional)
- Protective pad for SRU rack frame (optional)
- M2.5x6/7985 screw (optional)
- SRU rack frame (optional)
- Power corde for SRU rack frame (optional)
- User manual (optional)

Before use, check the contents of the box. For any deficiency report to the seller or the manufacturer of the product.
DEVICE IS INSULATED BY PROTECTIVE WRAP AND PACKED IN A CARDBOARD BOX.
DEVICE IS SENSITIVE TO SHAKES AND DROPS. HANDLE WITH CARE DURING TRANSPORT AND ASSEMBLY.
Check if the product is damaged during transport.

PROCEDURES FOR SAFE USE OF THE DEVICE:

1. - If the device is not supplied with SRU rack frame, remove the protective wrap from the device. If the device is supplied with SRU rack frame, remove the protective wrap from the chassis.
   - For devices that are AC 230V / 50Hz powered, the device is supplied with power cord.
   - Use only power corde that comes with the device.
2. SRU rack frame is mounted in a 19" special-purpose rack cabinets designed for this type of device. Screw device with four screws. Screws for fastening are not supplied with the device.
3. The device must be connected to ground. A device that is not connected to the grounding does not function properly according to factory declarations and can cause adverse effects on users and other equipment.
4. Strictly comply to all steps for proper connection of devices in the system.
5. On the SRU rack frame are 3 types of mass (CHASSIS, MAINS and 0V). The factory, all three are connected. According to the user's needs, the masses can be switched over between them.



Places for fastening

MAINTENANCE

The system maintains only person authorized by Sams elektronik doo.
Any voluntarily opening device, upgrading or servicing is strictly prohibited and is subject to warranty void, and the possibility of injury.

REMOVAL AND STORAGE

1. Before dismantling the device, switch off the power, remove the power cord and remove all other connectors.
2. Remove the four screws for fastening.
3. Remove the device from rack cabinet.
4. Wrap the machine in the foil to protect it from dust. Package it in a box.
5. The device must be stored in a room without moisture.

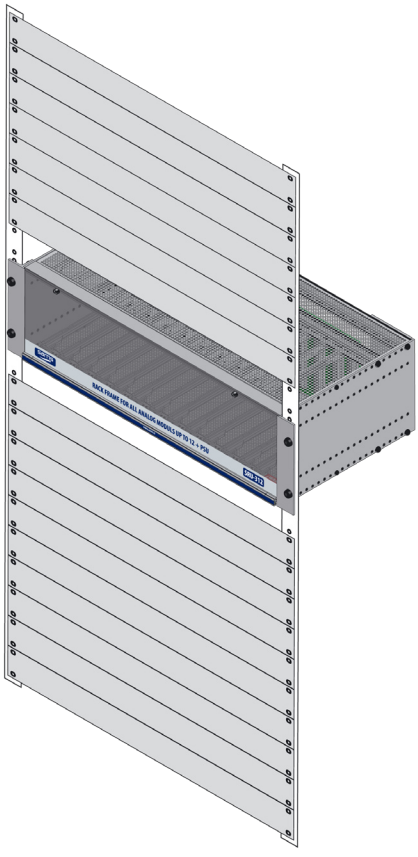
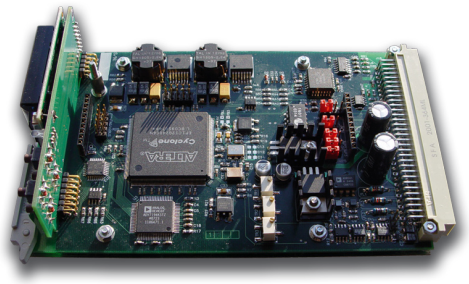


Illustration - mounted device

DESCRIPTION



DA-12fs

SDI to multiformat analog converter with frame sync

- Broadcast quality (12/10bit processing)
- Converts SDI to YUV, RGB, CVBS or YC
- Reclocked digital output
- Save 4 different presets
- Complete ProcAmp adjustment
- Jitter cleaner
- EDH processing
- PAL CVBS color framing and SC phase
- Pass, "Freezing" or broadcast test in the case of incorrect video input
- Integrated Test Generator (Black, Color Bar)
- Easy setup with local control and LCD display

DA-12fs converts SDI to composite or component analog video. DA-12fs have a frame synchronizer that asynchronous video signal recorded in the memory and reads it synchronized with an external reference, as well as other settings. It is useful for sychronizing large number of external signals with signals from the TV station, or the capture of material from an amateur into a professional format. With both available, composite and component (Y, Cr, Cb or RGB or YC) outputs, this unit is ideal for converting all types of analog video. Complete ProcAmp output signal controls are provided for all output formats with adjustments: Horizontal and Vertical Blanking, Horizontal and Vertical Position, SC Phase, Color Framing, Luma, Color, Pedestal, Sharpness, YC Delay etc. The module is placed in the SRU-306 3RU chassis with capacity of 6 modules. Also, the device is available in standalone version.

TECHNICAL SPECIFICATIONS

Specifications and designs are subject to change without notice

GENERAL INFORMATION

- Code: 005.130
- Weight: ..... 0.4 Kg
- Type: ..... module
- Dimensions: ..... 100 x 160mm
- Required: ..... SRU rack frame, back panel ADCV-8
- Delivery includes: ..... device, user manual

DIGITAL INPUT

- Number: ..... 1, BNC female
- Signal type: ..... Serial digital (SMPTE 259M)
- Impedance: 75Ω
- Input level: ..... 800mV ± 10%

DIGITAL OUTPUT

- Number: ..... 1, BNC female
- Signal type: ..... Serial digital (SMPTE259M)
- Impedance: 75Ω
- Jitter: .. < 0.2UI (Tipical 0.1UI @ Color Bar, 10Hz filter mode)
- Level: ..... 800mV ± 10%

ANALOG OUTPUT

- Number: ..... 3, (YUV, RGB, YC, CVBS) BNC female
- Impedance: 75Ω

REFERENCE INPUT

- Analog BB 300 mV: ..... 1, BNC

OUTPUT PERFORMANCE

- Bit resolution: ..... 10/12bit processing
- Black offset: ..... Self adjusting
- H adjustment range: ..... 0-64μs in 37ηs steps
- V adjustment range: ..... 0-625 lines in 1 line step
- SC range: ..... 0-360°

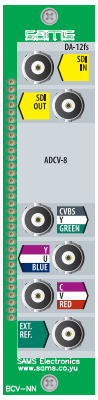
POWER

- Voltage: ..... 2 x 12V AC
- Power: 8W

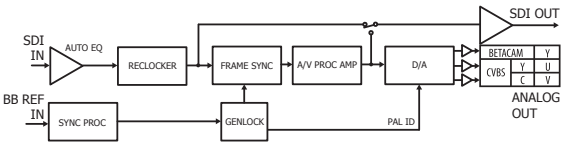
TEMPERATURE

- Performance: ..... 5-40°C
- Operating: ..... 0-50°C

BACK CONNECTOR ADCV-8



BLOCK DIAGRAM

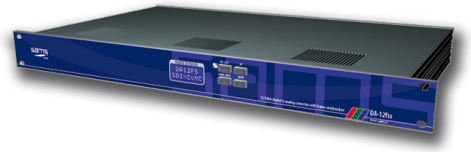


ORDERING INFORMATION

Code	Name	Description
005.130	DA-12fs	DAC FS
001.509	ADCV-8	Back connector
001.605	SRU-306	Rack frame for 6 modules

DA-12fss

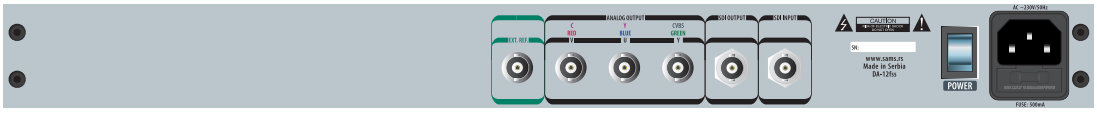
SDI to multiformat analog converter with frame sync



- Broadcast quality (12/10bit processing)
- Converts SDI to YUV, RGB, CVBS or YC
- Reclocked digital output
- Save 4 different presets
- Complete ProcAmp adjustment
- Jitter cleaner
- EDH processing
- PAL CVBS color framing and SC phase
- Pass, "Freezing" or broadcast test in the case of incorrect video input
- Integrated Test Generator (Black, Color Bar)
- Easy setup with local control and LCD display

DA-12fss converts SDI to composite or component analog video. DA-12fss have a frame synchronizer that asynchronous video signal recorded in the memory and reads it synchronized with an external reference, as well as other settings. It is useful for sychronizing large number of external signals with signals from the TV station, or the capture of material from an amateur into a professional format. With both available, composite and component (Y, Cr, Cb or RGB or YC) outputs, this unit is ideal for converting all types of analog video. Complete ProcAmp output signal controls are provided for all output formats with adjustments: Horizontal and Vertical Blanking, Horizontal and Vertical Position, SC Phase, Color Framing, Luma, Color, Pedestal, Sharpness, YC Delay etc.

front side



rear side

TECHNICAL SPECIFICATIONS

Specifications and designs are subject to change without notice

GENERAL INFORMATION

- Code: 005.112
- Weight: ..... 1.5 Kg
- Type: ..... 1RU rack frame
- Dimensions: ..... 1RU x 19" x 150mm
- Delivery includes: ..... device, power corde, user manual

DIGITAL INPUT

- Number: ..... 1, BNC female
- Signal type: ..... Serial digital (SMPTE 259M)
- Impedance: 75Ω
- Input level: ..... 800mV ± 10%

DIGITAL OUTPUT

- Number: ..... 1, BNC female
- Signal type: ..... Serial digital (SMPTE259M)
- Impedance: 75Ω
- Jitter: .. < 0.2UI (Tipical 0.1UI @ Color Bar, 10Hz filter mode)
- Level: ..... 800mV ± 10%

ANALOG OUTPUT

- Number: ..... 3, (YUV, RGB, YC, CVBS) BNC female
- Impedance: 75Ω

REFERENCE INPUT

- Analog BB 300 mV: ..... 1, BNC

OUTPUT PERFORMANCE

- Bit resolution: ..... 10/12bit processing
- Black offset: ..... Self adjusting
- H adjustment range: ..... 0-64μs in 37ηs steps
- V adjustment range: ..... 0-625 lines in 1 line step
- SC range: ..... 0-360°

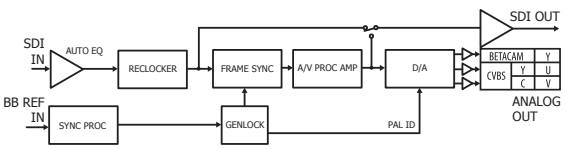
POWER

- Voltage: ..... ~230V AC ± 10%
- Power: 30W
- Frequency: 50Hz
- Overload protection: ..... front Mounted Circuit Breaker

TEMPERATURE

- Performance: ..... 5-40°C
- Operating: ..... 0-50°C

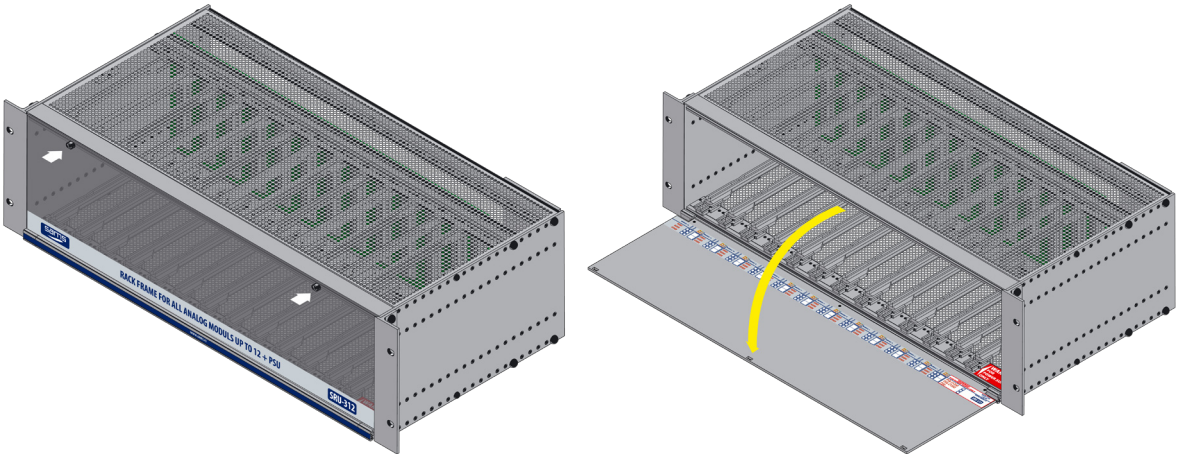
BLOCK DIAGRAM



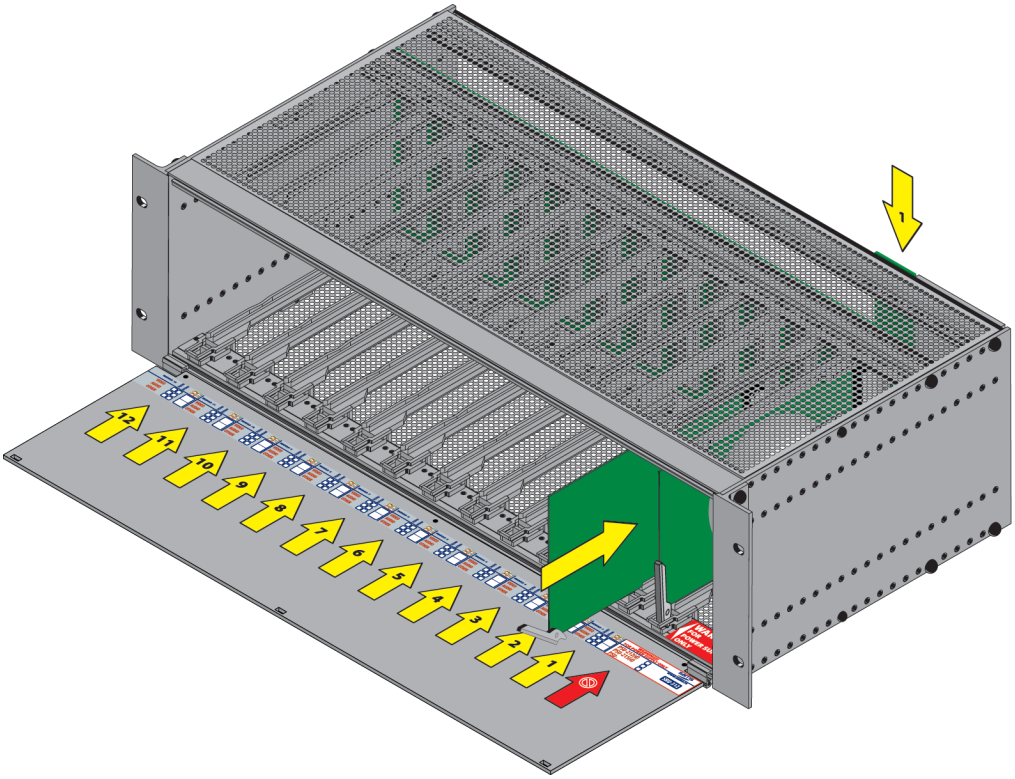
ORDERING INFORMATION

Code	Name	Description
005.112	DA-12fss	DAC FS

MODULE INSTALATION IN SRU RACK FRAMES



- On the front side of rack frame, unscrew the screws.
- Open the door.



Make sure that the module is set to the correct place in relation to the back connector.

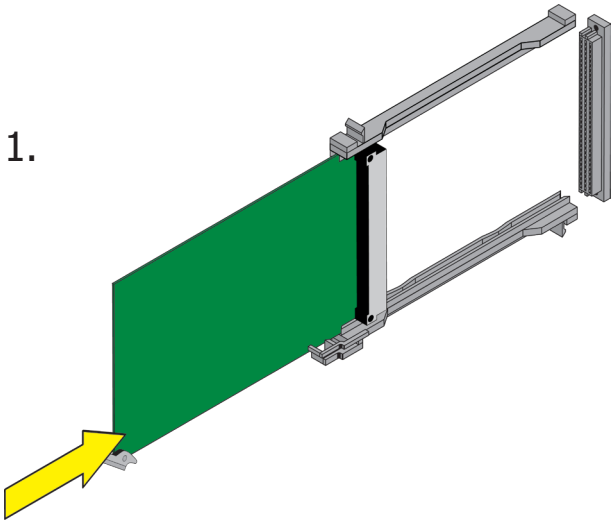
BEFORE INSTALLING OR REMOVING THE MODULE FROM SRU, ALWAYS TURN OFF THE POWER

Lock module with lever to the position.

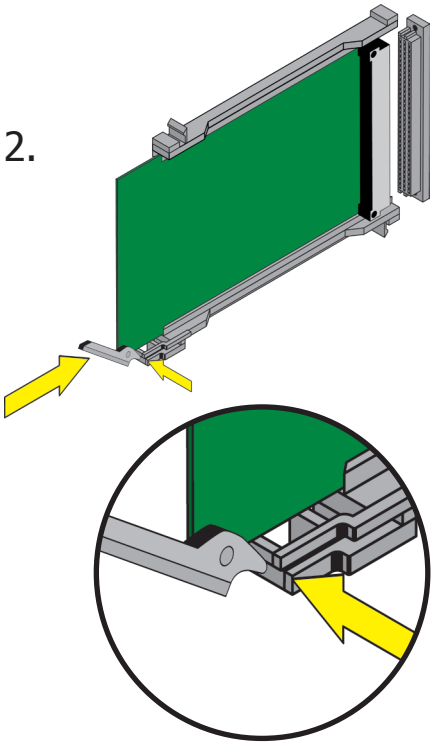
NOTE: NEVER PLACE MODULE TO PLACE OF THE POWER SUPPLY MODULE!

The label that indicates the place for power supply module

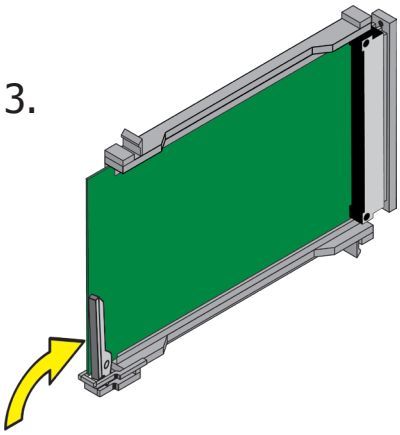
1.



2.

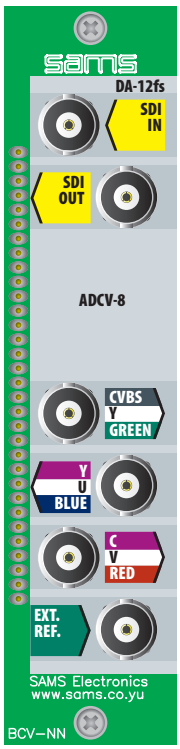


3.



1. The module set between the guides (not metal plate).
2. Locking lever mount behind the groove.
3. Push the lever to lock in an upright position. The module is locked.

BACK CONNECTORS



Fix the back connector with M2.5 screw.

SDI INPUT

SDI OUTPUT

ANALOG OUTPUT

ANALOG OUTPUT

ANALOG OUTPUT

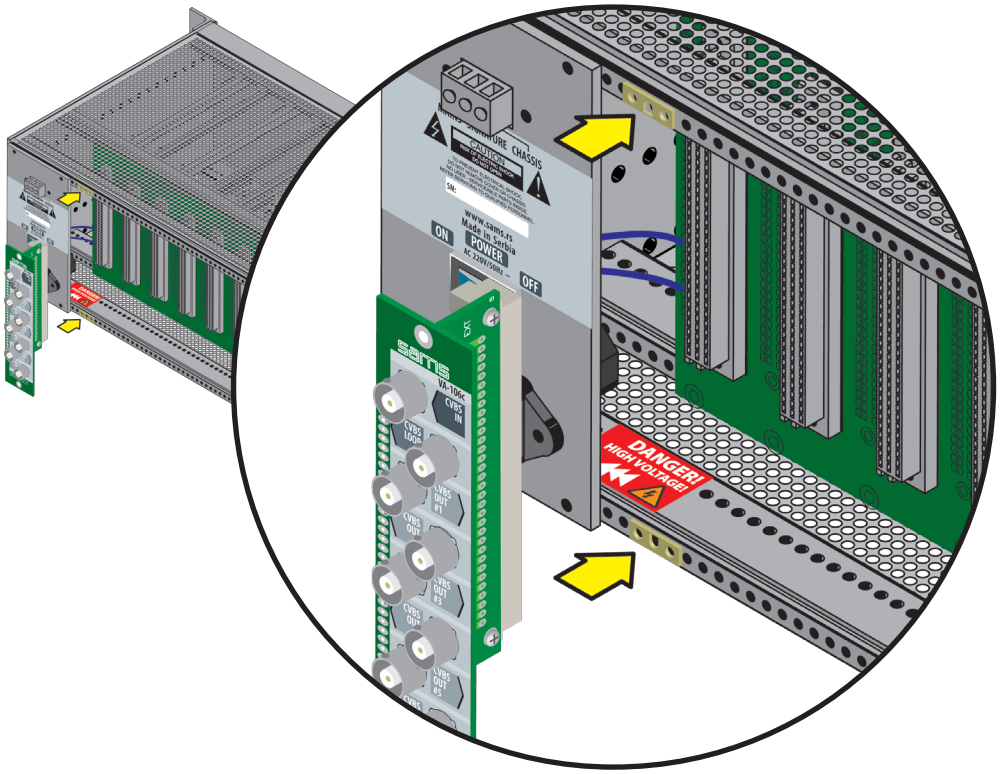
EXTERNAL REFERENCE

Fix the back connector with M2.5 screw.

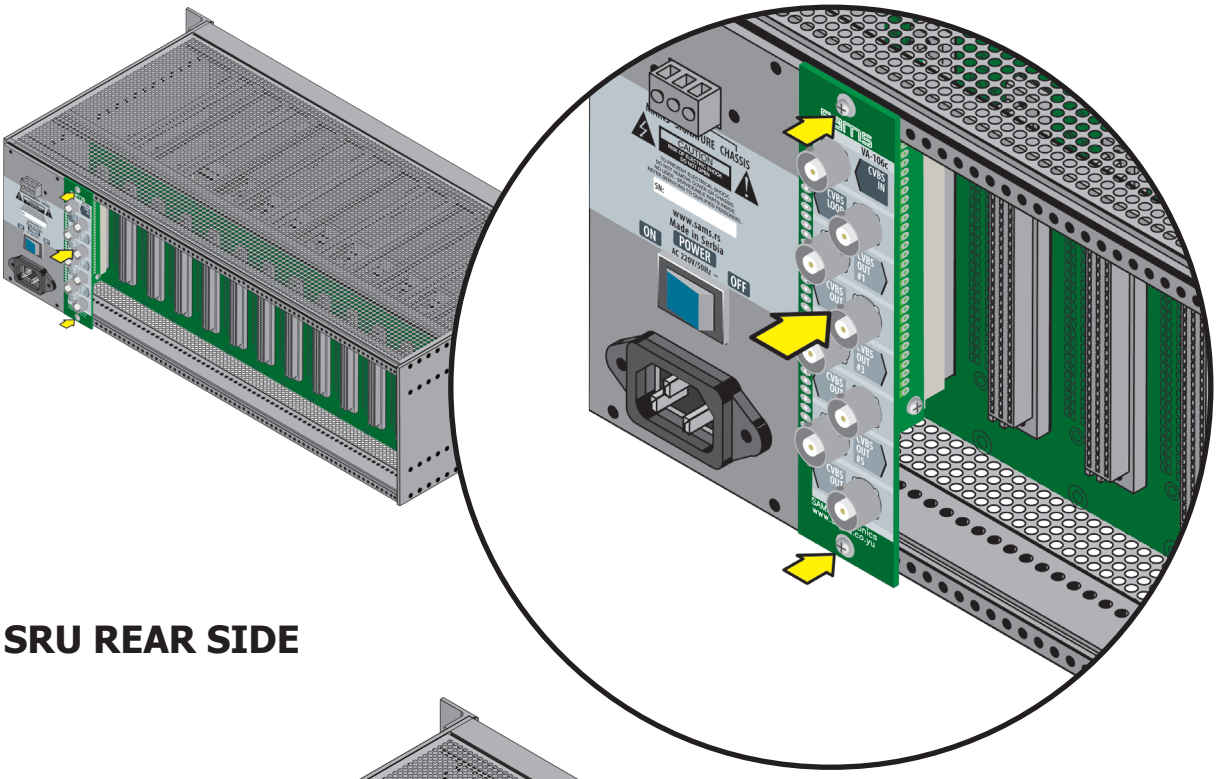
OPTIONS
1. CVBS & YC
2. YUV
3. RGB

DA-12fs

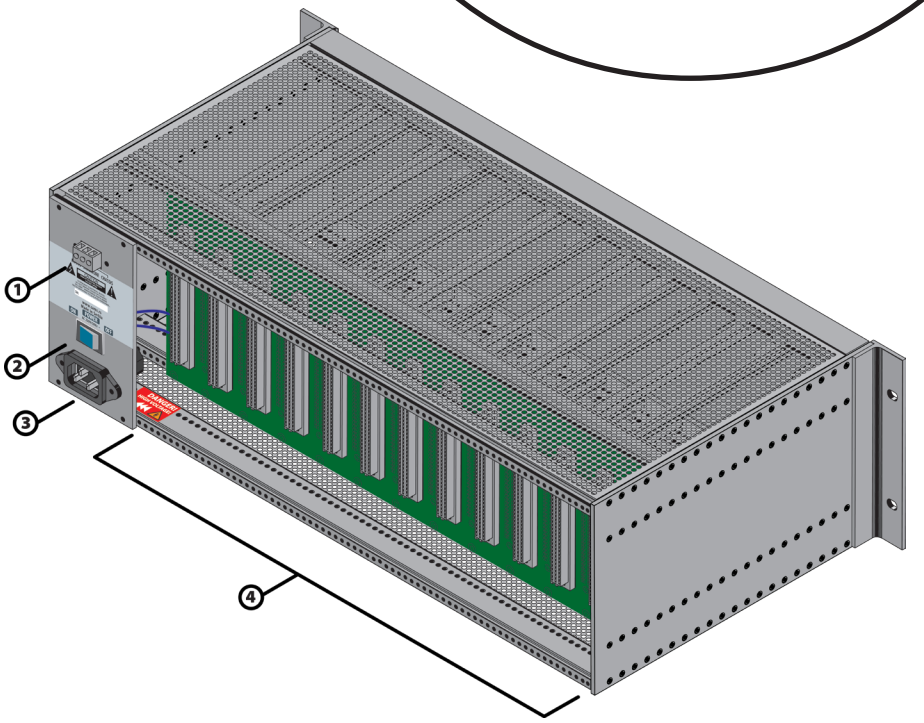
Be sure to install a protective pad before installing the back connectors.



Place the back connector. Fix the back connector with M2.5 screw.



SRU REAR SIDE



Rear side view

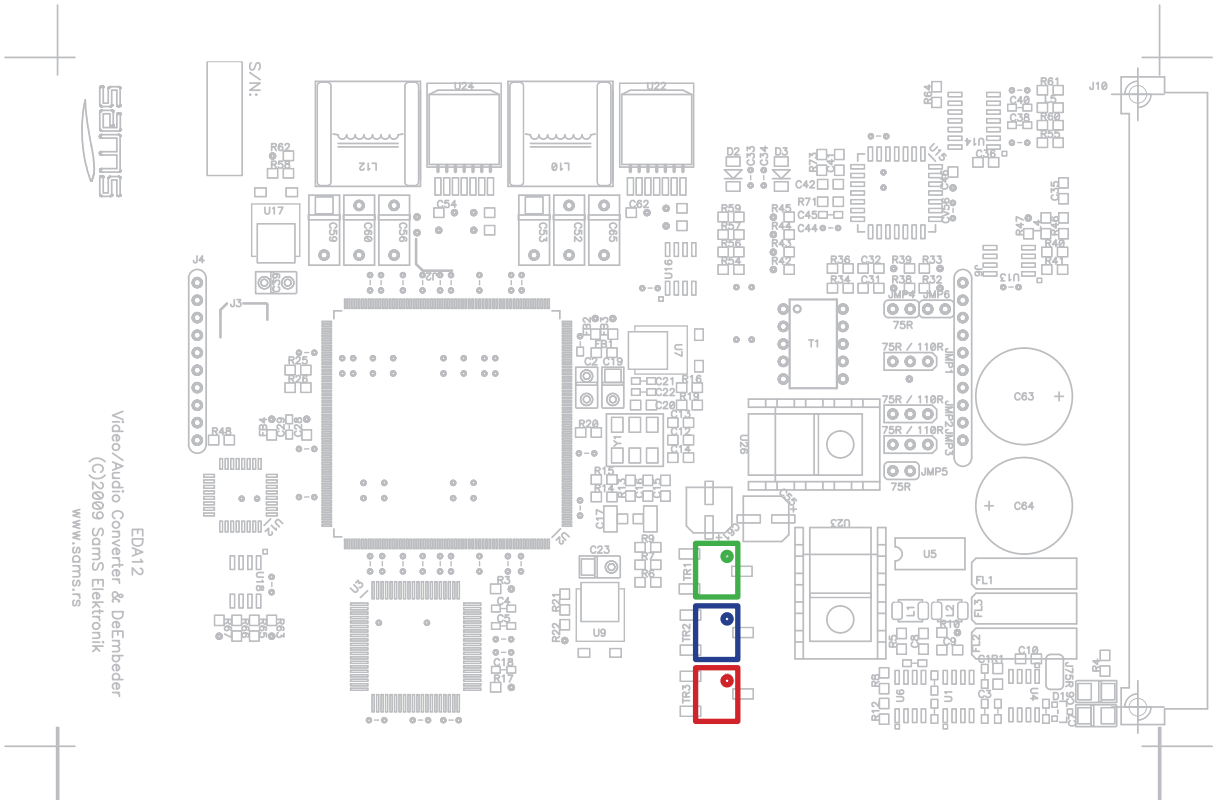
1. Mass
2. Power switch
3. The socket
4. Connections for back connectors

DO NOT INSERT SHARP METAL OBJECTS OR FINGERS INTO THE SPACE BEHIND THE POWER PANEL!

THE SIGN "LIGHTNING IN A TRIANGLE" IS TO ALERT THE USER TO THE PRESENCE OF LIFE-THREATENING HIGH POWER.

LABEL IS PLACED NEXT TO POWER PANEL.

PCB WITH THE LAYOUT OF ELEMENTS



DA-12

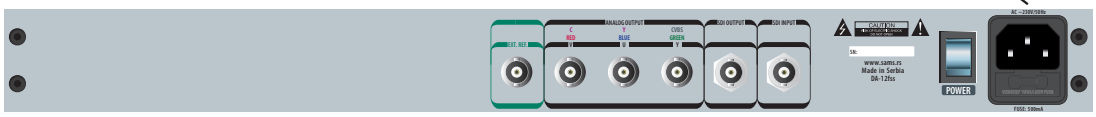
Trimmers to control the level of the video signal

	CVBS	Y	GREEN
	Y	U	BLUE
	C	V	RED

INSTALLATION (STANDALONE)

For the best signal quality use:
- Belden 8281 or better coaxial cable for analog video
- Belden 1694A or better coaxial cable for digital video

Connect the power cord.
The device works only on AC ~ 230 V / 50 Hz. ①

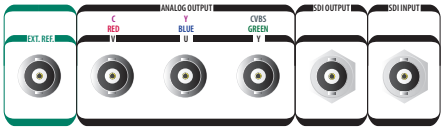


Rear side

Connect all necessary connectors
before the unit is turned on. ②

Turn on the device
by pressing switch. ③

Connectors on rear side



External reference

Analog inputs
The device supports composite and component signal
(CVBS&YC, RGB, YUB/BETA)

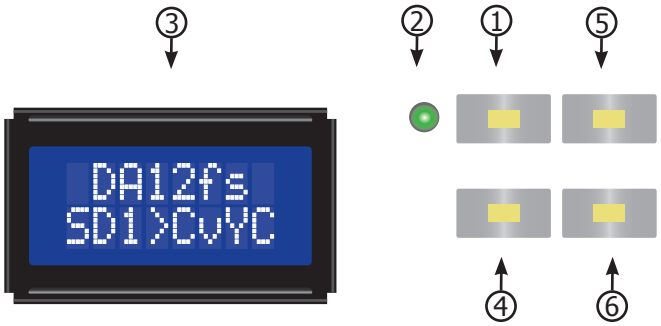
SDI output

SDI input

Front side

④ If everything is OK, the LED will glow green.

THE DEVICE FUNCTIONS

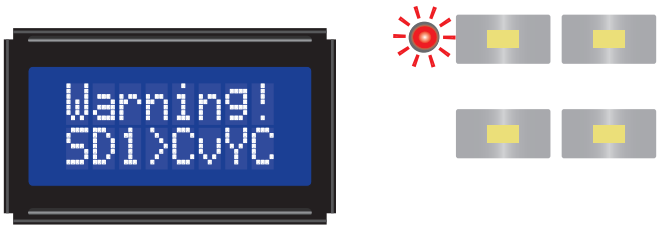


STATUS mode

When you turn on the device and if it is properly connected, the status is displayed.

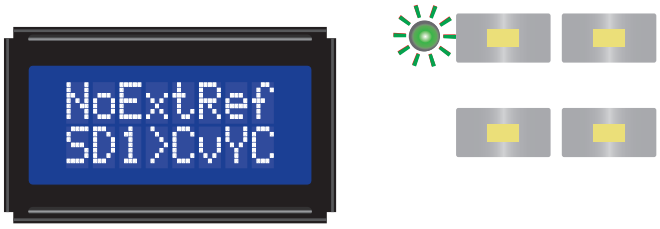
1. OK/SAVE push button - enters the submenu / saving
2. STATUS LED:
   - **GREEN** - the device is in normal mode
   - **GREEN flashing** - no external reference
   - **RED flashing** - has a external reference, but there is no input signal
   - **RED** - **GREEN flashing** - no external reference and input signal
   - **ORANGE** - freeze function is on
   - **RED-ORANGE flashing** - freeze function is on and no input signal
   - **GREEN-ORANGE flashing** - freeze function is on and no external reference
   - **RED-GREEN-ORANGE flashing** - freeze function is on and no input signal and external reference
3. Display
4. MENU/BACK push button - enter the menu from status mode / exit from the submenu
5. UP push button / Frame Freeze - choose the value in the submenu / freezes the image in the status mode
6. DOWN push button - choose the value in the submenu

ERRORS WITH CONNECTIVITY AND STATUS



If you notice that the LED flashes red, verify that the incoming signal is correct or check if the incoming signal cable is properly connected.

No input signal



No reference signal

If you notice that the LED flashes green, check if the external reference signal cable is properly connected.

The image is frozen

The status mode, pressing the button "UP", the picture freezes.

FACTORY SETUP

OUTPUT:	CVBS & YC
HV BLANK:	PASS ALL
H POS:	00.000µs [1]
V POS:	000 lines [1]
SC PHASE:	0.00° [1]
COLOR FRAMING:	Frame 0 [1]
ERROR MODE:	FIELD 1
LUMA LEVEL:	100% [2]
Colour LEVEL:	100% [2]
PEDESTAL:	0.0 Ire [2]
SHARPNESS:	0.0 db [2]
YC DELAY:	0/0

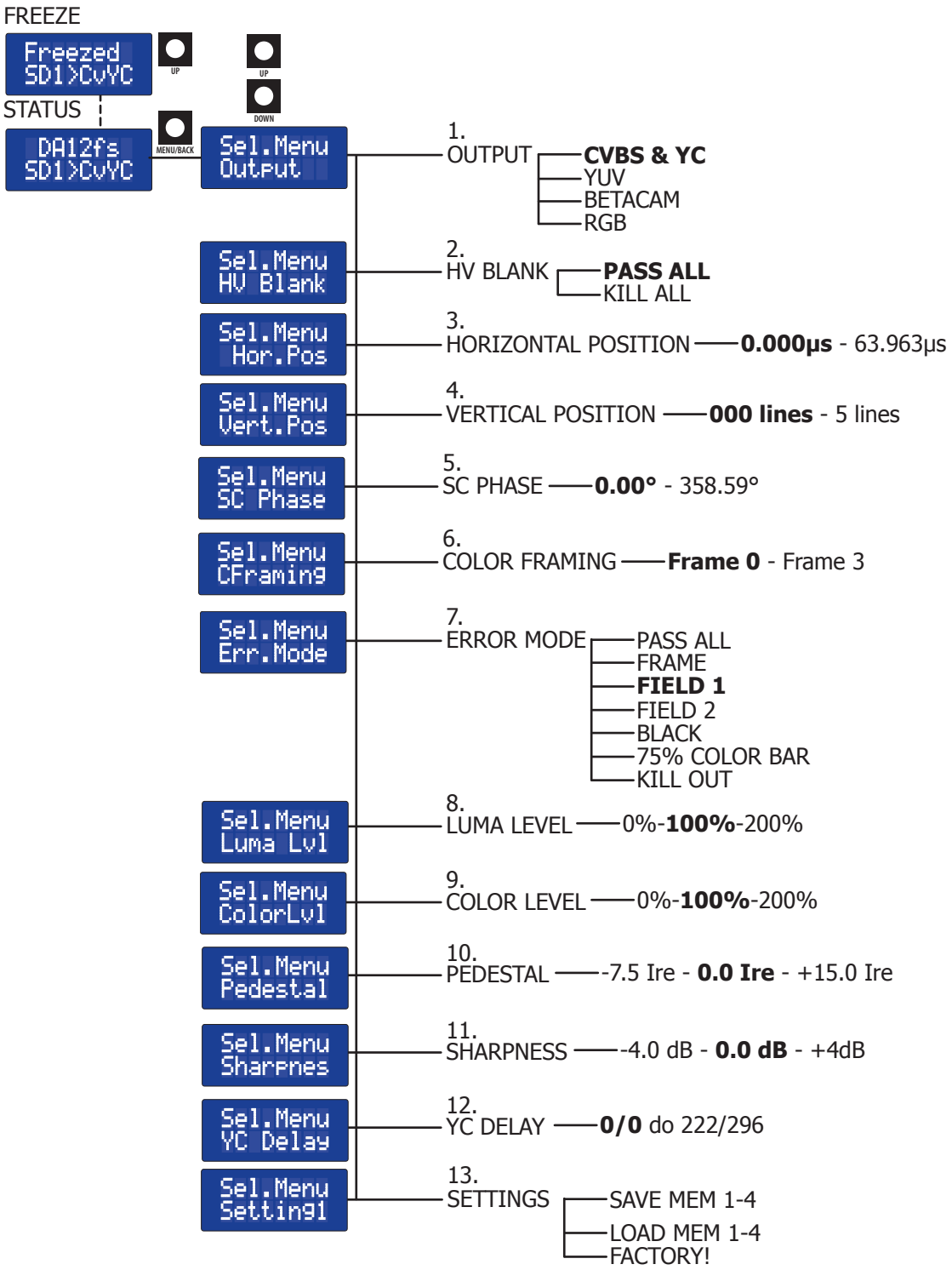
[1] In relation to the reference.
[2] Settings for analog output. Does not affect digital output.

MENU

To set the device, press the "MENU / BACK" button. Select the menu by pressing the UP / DOWN keys. On the selected menu, press OK.

Entering the menu for setting the device

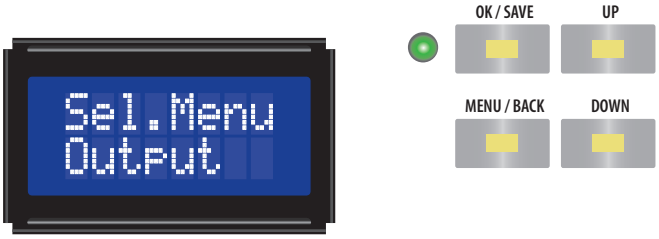
MENU TREE



The bold options are the factory default settings.

1. OUTPUT

This menu is used to select the outgoing signal.
Options are: CVBS & YC, YUV, BetaCam and RGB.
The factory setting is CVBS.
Select an option by pressing the UP / DOWN keys.



Menu - Output

Once you have selected the option, press the "MENU / BACK" button. Option is temporarily saved.

2. HORIZONTAL / VERTICAL BLANKING

This menu is used for pass / remove information that is contained in the horizontal and vertical blanking.
Choose one of options:
- PASS ALL - allow all the information contained in the horizontal (embedded audio) and vertical blanking (from 6 to 22 lines);
- KILL ALL - remove all information contained in the horizontal and vertical blanking.

The factory setting is PASS ALL.
Select an option by pressing the UP / DOWN keys.

Menu - HV Blank

Once you have selected the option, press the "MENU / BACK" button. Option is temporarily saved.

3. HORIZONTAL POSITION

This menu is used to adjust the horizontal phase of the output video signal.
Horizontal phase shifts in the intervals 37ns (half of one pixel) up to a maximum of one video line (63.963µs).
During the change in value, it may cause short-term image disturbance in monitor due to the transition to a new time.
The factory setting is 0.000µs.
Select an option by pressing the UP / DOWN keys.

Menu - Horizontal position

Once you have selected the option, press the "MENU / BACK" button. Option is temporarily saved.

4. VERTICAL POSITION

This menu is used to adjust the vertical phase of the output video signal.
The vertical delay is adjusted in increments of one video line, from 0 up to the 624.
The factory setting is 0 lines.
Select an option by pressing the UP / DOWN keys.

Menu - Vertical position

Once you have selected the option, press the "MENU / BACK" button. Option is temporarily saved.

5. SC PHASE

This menu is used to adjust the Subcarrier Phase of the output video signal.
Subcarrier Phase shifts in the step of 1.41°.
The factory setting is 00.00 °.
Select an option by pressing the UP / DOWN keys.

Menu - SC Phase

Once you have selected the option, press the "MENU / BACK" button. Option is temporarily saved.

6. COLOR FRAMING

This menu is used to set the color framing.
Due to the different length cables for external references, it is sometimes necessary to change the PAL sequence start.
NOTE: Color framing in a given field work only when connected to an external reference.
The default setting is Frame is 0.
Select an option by pressing the UP / DOWN keys.

Menu - Color Framing

Ulaz reference	Poluslika	0	1	2	3
	Talasni oblik burst-a				
Izlaz reference (Frame 0)	Poluslika	3	0	1	2
	Talasni oblik burst-a				
Izlaz reference (Frame 1)	Poluslika	3	0	1	2
	Talasni oblik burst-a				

Overview of possible values

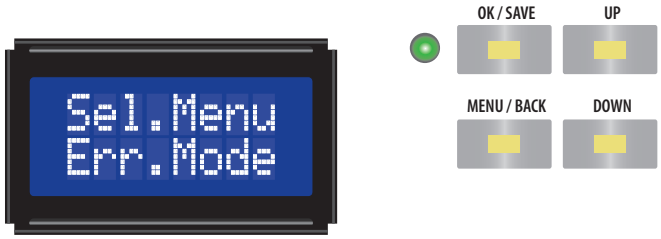
Once you have selected the option, press the "MENU / BACK" button. Option is temporarily saved.

7. ERROR MODE

This menu is used to set how the product behaves during a fault in the signal.
Select an option:

- PASS ALL - device pass signal no matter how bad signal is;
- FRAME - the device will freeze the last good picture due to poor incoming video signal;
- FIELD 1 - the device will freeze in the first field due to poor incoming video signal;
- FIELD 2 - the device will freeze the second field, due to poor incoming video signal;
- BLACK - the unit will generate a black image, due to poor incoming video signal;
- 75% COLOR BAR - the unit will generate a color bar, due to poor incoming video signal;
- KILL OUT - device will cancel the signal at the output due to poor incoming video signal;

The factory setting is FIELD 1.
Select an option by pressing the UP / DOWN keys.



Menu - Error mode

Once you have selected the option, press the "MENU / BACK" button. Option is temporarily saved.

8. LUMA LEVEL

This menu is used to adjust the contrast. This is achievable by scaling Y (luma) signals controlled by the user.
Control is allowed in a range of 0% to 200%.
The factory setting is 100%.
Select an option by pressing the UP / DOWN keys.

Menu - Luma level

Once you have selected the option, press the "MENU / BACK" button. Option is temporarily saved.

9. COLOR LEVEL

This menu is used to adjust the color level. This is achievable by scaling Cr and Cb signals controlled by the user.
Control is allowed in a range of 0% to 200%.
The factory setting is 100%.
Select by pressing the UP / DOWN keys.

Menu - Color level

Once you have selected the option, press the "MENU / BACK" button. Option is temporarily saved.

10. PEDESTAL

Pedestal is controlled by adjusting the level of the luma part of the video signal.
Pedestal is in the range of -7.5 IRE to 15.0 IRE with a step at 0.5.
The factory setting is 0.0 IRE.
Select by pressing the UP / DOWN keys.

Menu - Pedestal

Once you have selected the option, press the "MENU / BACK" button. Option is temporarily saved.

11. SHARPNESS

This menu is used to adjust the sharpness of the video signal.
Sharpness in the range of -4 dB to 4 dB in step at 0.5.
The factory setting is 0 dB.
Select by pressing the UP / DOWN keys.

Menu - Sharpness

Once you have selected the option, press the "MENU / BACK" button. Option is temporarily saved.

12. YC DELAY

This menu is used to set the delay luma and chroma part of the video signal.
Options for adjusting the delay luma and chroma video signals are displayed in the table.
The factory setting is Y: 0µs C: 0µs.
Select by pressing the UP / DOWN keys.

Menu - YC delay

	Y	C
	222	296
	222	148
	222	0
	148	296
	148	148
	148	0
	74	296
	74	148
	74	0
	0	296
	0	148
Default	0	0
	µs	µs

Table - YC Delay

Once you have selected the option, press the "MENU / BACK" button. Option is temporarily saved.

13. SETTINGS

After setup within the available menu options, it is temporarily recorded in the memory.
The number next to "Setting" means that the bank is loaded into memory.

When the device is set, select SETTING menu, press the "OK / SAVE" to open the options menu and select one of four banks to record: SaveMem1, SaveMem2, SaveMem3 and SaveMem4. The device can record 4 different settings.
After selecting a bank press "OK / SAVE". The display will print "SAVED".
If you want to stay in this menu, press the UP / DOWN keys, and to exit the MENU / BACK button.

In this menu, there are options: LoadMem1, LoadMem2, LoadMem3 and LoadMem4 or options to load settings.
After selecting a bank press "OK / SAVE". The display will print "LOADED".
If you want to stay in this menu, press the UP / DOWN keys, and to exit the MENU / BACK button.

Option FACTORY! set default settings in the currently active bank.
Press the "OK / SAVE". On display will print 'RESETED. "
If you want to stay in this menu, press the UP / DOWN keys, and to exit the MENU / BACK button.

Menu - Settings

NOTES